

Thames Tideway Tunnel East

Noise, Vibration and Air Quality Management



ACCON UK is supporting Costain Vinci Bachy (CVB) as noise and vibration consultants on the Thames Tideway Tunnel, East (TTTE) Contract. The project is presently half way through its six year programme, finishing in 2022. CVB has to obtain consents under Section 61 (S61) of the Control of Pollution Act from the relevant local planning authority for their construction work. ACCON are responsible for carrying out noise and vibration predictions and assessments which form a key part of each S61 application. ACCON also provides air quality consultancy advice to support the air quality monitoring for the contract.

The Tideway East Contract comprises six principal worksites, including four with major shafts, constructed using diaphragm walling, to provide access or egress for the tunnel boring machines (TBM) that are used to construct the sewer tunnels. Several sites are highly constrained with residential property situated immediately adjacent, and other sensitive receptors such as schools located close by. Tunnelling takes place 24 hours a day, seven days a week, with working at night having significant potential to cause noise disturbance to neighbouring residents.

ACCON has carried out noise and vibration assessments for six S61 applications for the major tunnelling site at Chambers Wharf in Bermondsey. We have also worked on assessments for several S61s for other worksites including King Edward Memorial Park, Deptford and Greenwich. Our team provides a range of support services for the CVB environmental team, including attending site offices and liaising with project engineers as part of the development of S61 plant and programme assumptions. This work involves the development of best practicable means mitigation (BPM) measures, as the use of BPM has to be demonstrated to achieve S61 consent. It is also necessary to take account of Trigger Action Plans and the project's noise insulation policy in conjunction with developing the on-site BPM. ACCON has carried out various additional extensive noise assessments, including studies to develop enhanced noise mitigation measures and acoustic modelling and testing of large acoustic sheds and other plant enclosures to ensure project noise constraints and Development Consent Order requirements can be achieved. In due course, ACCON's work on the project will include predicting and assessing levels of ground-borne noise and vibration from tunnelling.

Providing noise and vibration support to a large scale construction project requires the ability to deliver complex and detailed assessments within tight timescales, working in close cooperation with the client. The responsive ACCON team has demonstrated the ability to work in this way throughout this project.

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